Parameter error analysis in J/ψ p_T fit

Tomáš Herman

Faculty of Nuclear Sciences and Physical Engineering
Czech Technical University in Prague
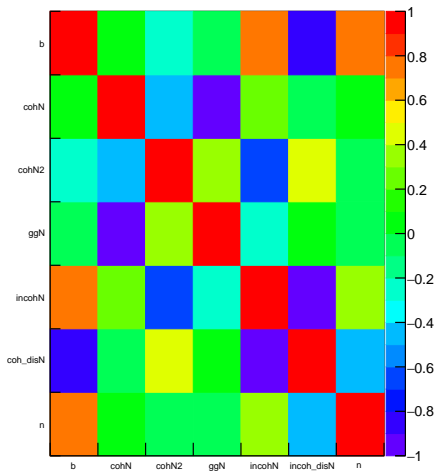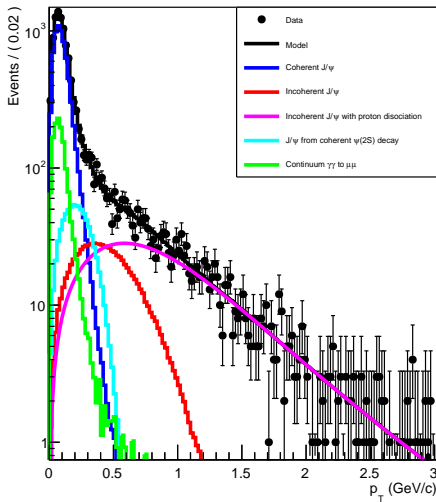
Figure: Real data fit, all prameters free.

Data		chi2/ndf:	0,835261
Process	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6918	83	645
incoh	836	29	153
coh2	771	28	106
gamma	1352	37	623
disoc	1668	41	117
b	1,6999	1,30380	1,005736
n	3,5661	1,88841	0,311468

Table: Real data fit, all prameters free.
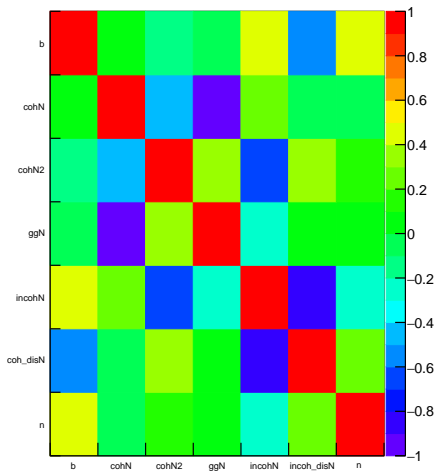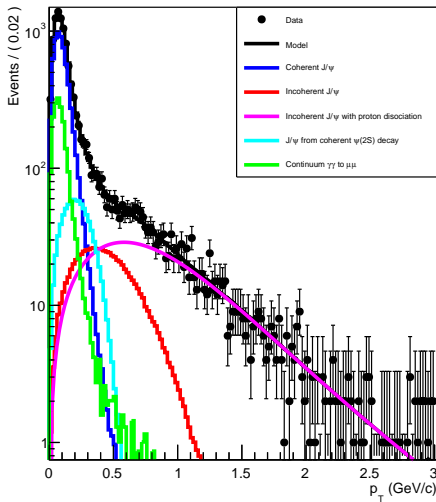
Figure: MC data fit, all prameters free.

MC data			chi2/ndf:	0,564365
Process	**#entries**	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6882	6245	79	643
incoh	852	775	28	133
coh2	721	847	29	104
gamma	1350	1927	44	622
disoc	1668	1677	41	98
b	1,7	1,7	1,30384	0,0957796
n	3,56	3,766	1,94062	0,283356

Table: MC data fit, all prameters free.
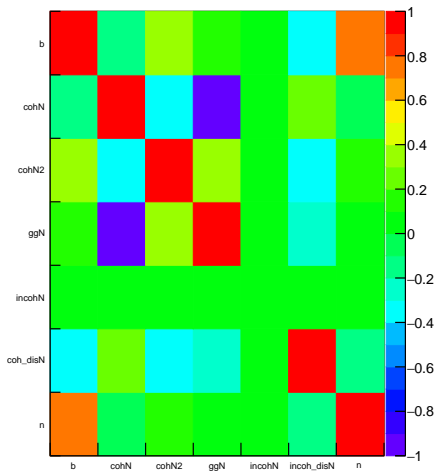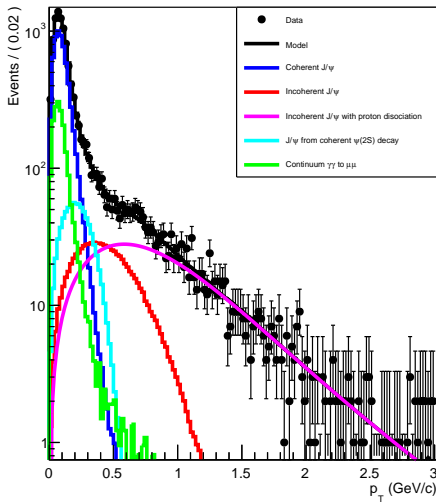
Figure: MC data fit, incoh fixed.

MC data			chi2/ndf:	0,56137
Process	**#entries**	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6882	6367	80	624
incoh	852	fixed	#VALUE!	
coh2	721	803	28	83
gamma	1350	1817	43	607
disoc	1668	1636	40	59
b	1,7	1,7	1,30384	0,131825
n	3,56	3,67379	1,91671	0,319593

Table: MC data fit, incoh fixed.
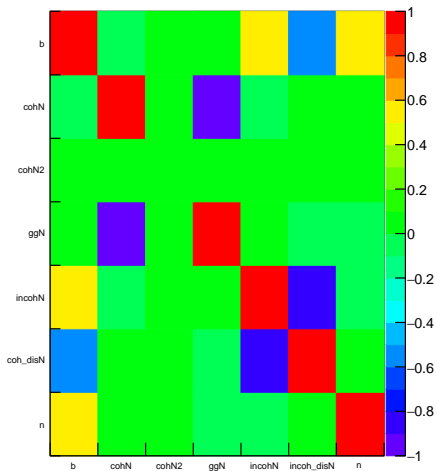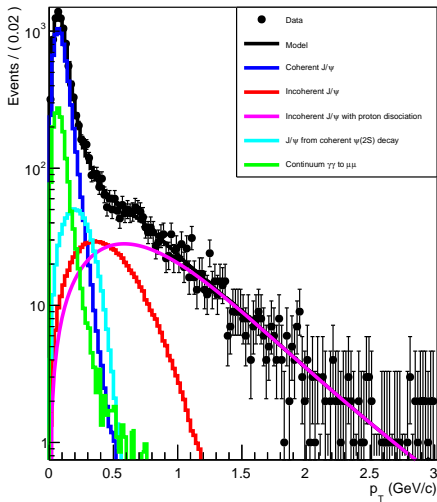
Figure: MC data fit, coh2 fixed.

MC data			chi2/ndf:	0,569302
Process	**#entries**	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6882	6601	81	575
incoh	852	870	29	107
coh2	721	fixed	#VALUE!	
gamma	1350	1629	40	574
disoc	1668	1642	41	95
b	1,7	1,7	1,30384	0,124875
n	3,56	3,69064	1,92110	0,28677

Table: MC data fit, coh2 fixed.
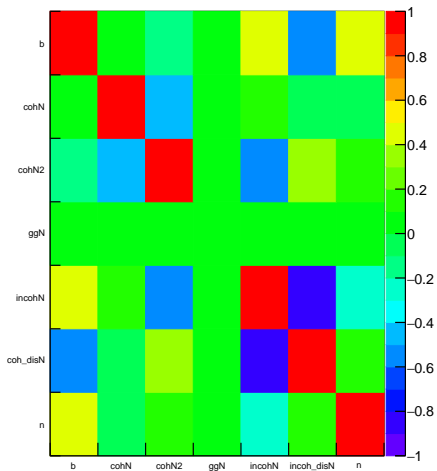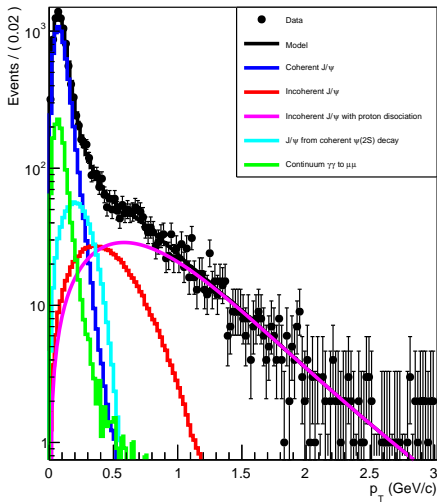
Figure: MC data fit, gamma fixed.

MC data			chi2/ndf:	0,5631
Process	**#entries**	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6882	6833	83	107
incoh	852	804	28	129
coh2	721	810	28	96
gamma	1350	fixed	#VALUE!	
disoc	1668	1672	41	98
b	1,7	1,7	1,30384	0,10194
n	3,56	3,7533	1,93734	0,283619

Table: MC data fit, gamma fixed.
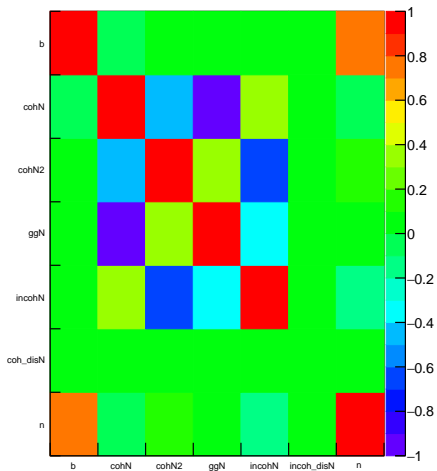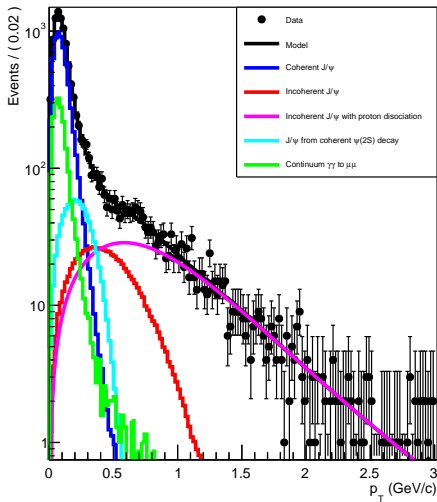
Figure: MC data fit, disoc fixed.

MC data			chi2/ndf:	0,5631
Process	**#entries**	**#N_fit**	**sqrt(#N_fit)**	**#N_fit error**
coh	6882	6250	79	641
incoh	852	785	28	77
coh2	721	843	29	98
gamma	1350	1923	44	621
disoc	1668	fixed	#VALUE!	
b	1,7	1,7	1,30384	0,0795964
n	3,56	3,75047	1,93661	0,285092

Table: MC data fit, disoc fixed.